KERALA MEGALITHS AND THEIR BUILDERS

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AND
THEIR BUILDERS

By

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UNIVERSITY OF MADRAS

1967

First Published January 1967

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Price Rupees 3-50

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Printed at A. L. S. Achagam, Madras, and Published by the University of Madras, Chepauk, Madras-5

INTRODUCTION

Mr L. A. Krishna Iyer is a well-known authority in the field of Social Anthropology, and has done good work in the past. Under the scheme outlined by the University Grants Commission he was given an opportunity to continue his research work in Madras University. He has examined here the problem of the human past in Kerala from the earliest ages. Well-known experts, like Sir Mortimer Wheeler, have appreciated his work. I have no doubt that the present publication will go to enrich the researches in archaeology in Kerala.

A. Lakshmanaswami Mudaliar

Vice-Chancellor

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PREFACE

A study of the megalithic monuments of the erstwhile State of Travancore first engaged my attention in 1926 in the State's Rani Reserve. Five years later, as Special Ethnographer to the Census Commissioner, I made a survey of these monuments. It was a rewarding experience, and it enabled me to deal with the subject for the first time in the *Travancore Census Report* of 1931, and later in the third volume of the *Travancore Tribes and Castes* (1941). The subject was covered, in all-Kerala perspective, in my *Prehistoric Archaeology of Kerala* (1948). V. D. Krishnaswami and Y. D. Sharma conducted a survey of the megalithic monuments of Cochin and Malabar in 1944, and A. Aiyappan of the rock-cut tombs of Malabar. B. K. Thapar did excavation work at Porkulam in Cochin, and this enabled him to observe that the technique and fabric of pottery found there were identical with that of Mysore and elsewhere.

Literature has since increased enormously that a restatement of the origin of megaliths has become necessary in view of the difference of views on the subject. An opportunity presented itself in 1962 when the University Grants Commission awarded me a grant for the continuance of research in Kerala, and for the publication of a series of monographs under the title *Kerala Through The Ages*. This publication, *Kerala Megaliths and Their Builders*, forms the first of the series. The isolation of Kerala facilitated certain survivals in time and space. Who were the megalithic builders who harnessed their energy to put up gigantic monuments like the dolmens and menhirs, and when and how did they come into existence are matters on which archaeologists are not agreed? I have made an endeavour to set at rest the controversy over them.

In Kerala, megaliths are found on the Cardamom Hills, the Anjanad Valley, Parambikulam, Nelliampathi, and Palapalli forests, and, on an extensive scale, west of the Edakal cave in the Wynaad. They are found larger in size on higher elevations than at lower levels where they exhibit a deterioration in size. Megalithism prevails as a living institution among the Pre-Dravidian tribes of Kerala and other parts of India. The view is held that dolmens came to India from the West across the land through the Punjab and Sind. It is also held that they came from Eastern Asia. Most remarkable is the view propounded by Bonstettan that the people of the dolmens started from the west coast of Malabar and entered Europe. The people of South India are credited with being the carriers of culture. Bonstettan identifies them with the Kurumbas among whom, as well as among the other Pre-Dravidian tribes, megalithism lingers. This monograph discusses the dolmen builders, problem from a broad world perspective, and puts forward the view that they went from east to west.

I take this opportunity of expressing my thanks to Dr. A. Lakshmanaswami Mudaliar, Vice-Chancellor, University of Madras, for his Introduction; to Sir Mortimer Wheeler for his Foreword; to T. V. Mahalingam and A. K. Mitra for several helpful suggestions; to L. K. Bala Ratnam for looking through the script; to the Director-General of Archaeology, Archaeological Survey of India, for the photographs relating to the Cochin monuments; to the University Grants Commission for the encouragement given to the work; and to the University of Madras for all facilities extended to the author.

Madras

L. A. Krishna Iyer

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FOREWORD

Mr Krishna Iyer has invited me to write a Foreword to his little book, and I am glad to do so for specific reasons. The author has here collected a useful miscellany relating mainly to the Kerala megaliths and their human environment. During the last 20 years a good deal of useful work has been done on this wide and important subject; wide because our inquiry takes us inevitably to the limits of the Sub-Continent, if not far beyond them; and important because it relates to a phase of Dravidian India that must lie near to the human foundations of the Peninsula as we know it today. Let it be said at once that there is still much work to do before we can hope to agree upon the answers to the problems presented.

Those problems relate to language, race, and culture—three things that are liable to be confused with one another, but may have wholly distinct origins. First and foremost, Dravidians are people who speak a Dravidian language. Racially they may, and do, differ widely among themselves. And those of them who have in the course of prehistory and history, right down to modern times, commemorated or entombed their dead by the building of "megalithic" or large stone monuments have differed notably in the pattern and use of these materials. There is ample room for confusion. There is, in fact, ample confusion.

If, therefore, I do not always find myself in close agreement with views expressed in the following pages, that is a divergence inherent in the matter. I welcome the book, as one must welcome all attempts to classify and interpet our information, however disputable the consequence. What is needed more than anything else in the present state of ignorance is local study rather than overall conjecture. Megaliths, both

inside and outside India, have been bedevilled by conjecture, and the author quotes one or two examples with a greater patience than I might have spared them. But it is to be hoped that he, or someone after him, may in due course (and before too long) carry through detailed regional surveys, with all manner of illustration, on the lines adopted so profitably by Mr V. D. Krishnaswami in the Madras region.

That is the way of progress; and, if Mr Krishna Iyer's essay does something to provoke or stimulate projects of that sort, he will not have written in vain. I wish him well.

London MORTIMER WHEELER

1

EMERGENCE OF MEGALITHISM

DIGGING up the past is as entrancing as space travel. The great English poet, William Wordsworth, objected to the man who would "peep and botanise on his mother's grave", but the exploits of a Schliemann or an Evans or a Marshall belong to an altogether different category. To outward seeming, archaeology is a prosaic affair of shovels and pickaxes, but what these implements turn out literally from the past is, in many cases, fascinating indeed.

There is nothing in the history of archaeology so fascinating as the story of the poor German boy who, delighted with his Homer, resolved then and there to identify the site of Troy. When he had earned a fortune, he devoted it mainly to excavation, and proved the existence of seven cities in that locality. He then turned to unearth the graves of Mycenae. Sensational results with the pickaxe were obtained in 1900, by Arthur Evans, who laboured in Crete, and these and Schliemann's excavations have been paralleled only by the work at Mohenjo-Daro and Harappa, in the 1920s, of John Marshall and later of Mortimer Wheeler.

Archaeology has revealed the evolution, migration, and assimilation of various cultures, and has enormously widened the horizons of our knowledge in the range of time and the realm of thought. The human past (prehistory), many times longer than the historic period, is being made clearer, and to archaeology should go the credit for the discovery of the presonality of India, and for a better understanding of her civilisation and culture. Archaeology, the science of antiquities prior to all human documents, deals with the material relics

of man, and aims at their conceptual integration in time and space so as to reconstruct man's story in its true cultural and physical environment. It should, therefore, include all peoples and all those aspects of man's existence on the planet of which a historian has had so little to say. In brief, it has to concern itself not only with peoples who have not bequeathed us their annals, but also with the story of man after the appearance of written documents. Though it is difficult to make prehistory precise, ethnography with archaeology means for us the web of the story of the existence of peoples of prehistoric times. History, archaeology, and anthropology should form the equipment to learn further of our ancestors. But it is only the anthropologist, particularly the human palaentologist, who can study skeletal remains and help the archaeologist in his efforts to identify the authors of the material relics of the past.

An interesting possibility exists for the unravelling of the problems of the past by observations on the significant survivals of objects and customs among existing peoples. Thus, more light can be thrown on the problem of ancient burial customs in South India by archaeological evidence on the survivals of practices among backward tribes. Primitive man can be reached in his humble life only through the remains of his industry. The prehistorian must investigate objects of all kinds, and he must make them come to life to the reader. In the palaeolithic and neolithic epochs of prehistory, industry occupies a prominent place. Technical invention always bears the hallmark of individual effort, and is born from direct experience of cause and effect in the external universe.

Indian Stone Age

Investigation of the Indian Stone Age was neglected after the pioneering work of R. Bruce Foote until the

1930s, when Miles Burkitt turned to the interpretation of certain Indian material collected by L. A. Cammiade at much the same time as other workers were investigating ancient stone industries and geological phenomena in the northwest. This led to the joint expedition by the Yale and Cambridge universities led by De Terra, Paterson, and Tielhard de Chardin, and their work was supplemented by that of Movius and V. D. Krishnaswami. These studies initiated us into an extremely important series of Old Stone Age human industries associated with geological deposits, which in the river terraces of the Himalayan region, at all events, seem to offer promising correlations with the known sequence of Northern Europe. The results of excavations at Mohenjo-Daro, Harappa, and elsewhere revolutionised all existing ideas, not only on the origin of the Indian, but also on human civilisation in general. With Wheeler's discovery of the indigenous pointed butt-axe culture at Brahmagiri, a brilliant decade followed by the location of many centres of chalcolithic neolithic culture in Central and Western India, as revealed by the excavations at Nasik on the Godavari, and elsewhere.

No other prehistoric remains are so startling and so evident even to the layman as the megalithic monuments—huge slabs of crude rock, menhirs pointing skywards, dolmens set up on unhewn stones horizontally, or huge boulders arranged symmetrically in alignments and circles. Such megalithic monuments are scattered over the landscape in large numbers in many parts of Southern and Western India, and above all in the Deccan. The digging done by Jagor at Adittanallur (Dist: Tirunelveli) at the urn burial site gave impetus to further excavations by Rea between 1899 and 1905, and at Perumbair (Dist: Chingleput) between 1904 and 1908. In the accounts published by Meadows Taylor, and Breeks, in the latter half of the 19th century, we are

in possesion of meterial of the highest value. From his experience of cairns in Northumberland and the dolmens of the Deccan, Breeks conbluded that the English, the Nilgiri, Malabar, and Canara cairns and cists were identical in structure. Since then, a considerable amount of work has been done by Longhurst, Hunt, Munn, Wakefield, Yazdani, Richards and others.

A survey of the megalithic monuments of the erstwhile State of Travancore was first made by L. A. Krishna Iyer in connexion with the 1931 Census. Thirteen years later- under the direction of the Archaeological Survey of India, Krishnaswami conducted a regular survay to make a complete note of their features, contents, and distribution, and to classify them typologically, and arrived at tentative conclusions. In this survey, Krishnaswami and Y. D. Sarma covered Cochin and Malabar.

Kerala's Legendary Origin

During the last four decades, studies on the prehistoric archaeology of Kerala have made considerable progress. Her traditional history is enshrined in the *keralamahatmyam* and the *Keralolpathi*. They recount that the axe-bearing incarnation of Vishnu (Parasurama) was urged by the *rishis* to expiate the sin of having slain his mother by extirpating the Kshatriyas who were considered the enemies of the Brahmins. This he accomplished in 21 expeditions. At Wiswamitra's suggestion, he made over all the land within the four seas with the blood guiltiness attached to it, and made them drink the water of possession. The Brahmins turned him out of the land that he thus gave away, but with God Subramania's assistance, he obtained by penance from Varuna, the god of the seas, grant of some land to dwel on. The throw of the axe was to determine the extent. He threw it from Gokarna to Kanyakumari (Cape Comorin).

Of how Kerala was born from the seas and peopled is told in the popular legend of Parasurama. This legend is believed by many to deal with events between 1400 B. C. and 1000 B. C. There can be no doubt that Kerala was known to the Aryans at an early period, at least in the first half of the fourth century B. C.

It may not be improbable that this portion of the land once lay submerged under water, and by subsequent natural process, water receded westwards coming to the present limit of the Arabian Sea. Geologists consider it possible that, at some remote period, the sea washed the foot of the Western Ghats and that the narrow strip of land that now divides them has been raised by some earthquake or volcanic convulsion. The gneisses are the most prevalent and fundamental rocks. The Quilon beds are said to belong to the Eocene Age, and the Varkala beds to the Upper Tertiary.

In the absence of any direct evidence bearing on the first settlers of Kerala, reliance has to be placed on material scattered all over the State in the shape of dolmens, menhirs, cairns, hood-stones, rock-caves and others.

Distribution of Prehistoric Monuments

But who were the people that harnessed their energies to the gigantic task of erecting megalithic monuments ?

The distribution of prehistoric monuments in India follows the zones of the primitive tribes. They include Assam, Chota Nagpur, and South India (and in the North-West Frontier Region and Sind which now form part of Pakistan) where cairns and cromlechs have been recorded by Henry Cousens. They are conspicuous by their absence in the valleys of the

Ganges and its tributaries, of the Narbada, and of the Tapti north of the Vindhyas. They exist over the whole country drained by the Godavari, more commonly in the valley of the Krishna, on both sides of the Ghats, in Coimbatore, the Anjanad Valley of Travancore, the Cardamom Hills, and as far as Cape Comorin. They are found in groups in parts of Madras State, especially in the neighbourhood of Kanchipuram (Dist: Chingleput). The urns containing the ashes of the dead are placed in little circular cells with flat tops in the vicinity of villages, and are used by villagers as seats on occasions when the village assembly meets. In Assam, if a Khasi recovers from illness, he erects a stone in favour of his ancestor-spirits. On the Nilgiris, there are large stone circles and dolmens, while in Bellary, where a large number are found, half are of the holed variety and are known as the Dwarfs' House. In North Arcot, such structures have been found to be strewn over a square mile.

Dolmens or burial urns, in which are found bones, implements, pottery, and beads, occur in the upland tracts of the country, and the people who found their sepulchres in them may have been the first settlers of Kerala. Subjugated and harassed by the succeeding waves of immigrants or invaders, the race seems to have become extinct a long time ago, and left no traces except their sepulchres. The men of the Bronze Age used to bury their dead either in unburnt condition or after cremation, and raised mounds over them. The ashes of the cremated bodies with their tools, weapons, and utensils are often placed beneath the urns.

In Kerala, dolmens are found principally on the Cardamom Hills, and in the Anjanad Valley. They are found on both the banks of the Pamba in Anjanad, and command a wide view of the surrounding country

so as to be eminently suitable for defence. On the highlands, they are larger in size than in the lowlands where they exhibit a progressive deterioration in size. The types found are stone circles and dolmonoid cists built of unhewn and hewn slabs of stone. A great concentration of dolmens is found in the Anjanad Valley. They arose where population could thrive. The custom of burying ashes and bones in pots prevails among some castes, and perhaps represents the highest sophistication of the art of disposal of the dead, which dictated the construction of megalithic monuments.

No Longer a Riddle

Respect for the dead has been a prominent characteristic of man in palaeolithic and neolithic periods. The sudden emergence of the megalithic culture, characterised by lavish iron implements in the Peninsula, and its maturity suggesting an intrusion of a perfected tradition, remains no longer a riddle. The most interesting aspect of neolithic life in Kerala lay in the rituals of the dead which consisted in raising works of rough stone over the dead who are buried in urns. The idea was that the spirit of the dead should be given a location as in life, and that the chamber of the dead should be a prototype of the house. They apprehended that, unless the departed spirit had a house and other things in life, it would hover restless around its old abode and do harm to the living. So the spirit is kept contented and close to home, but is essentially hamstrung so that it cannot walk about. Such cremation practices could have revived only when pottery came into being for the first time during the neolithic revolution which followed close upon the last melting of the great ice sheets. Among such people, for the first time, we also find evidence that stands forth like a beacon that man recognised his soul.

An imperfect glimpse of the past is given by Ward and Conner who stated that there were no monuments worth attention. "The *pandukuzhies* or barrows, those remains of primeval customs so common throughout the Peninsula, are also found here, though they are not so numerous. In one opened at Chokkanad peak, near Devikulam, there was found a large earthen jar containing paddy husk. Menhirs are found in Travancore and Cochin. When the Varkala tunnel was bored, old pots and human skeletons were found. These remains indicate that the tracts were inhabited by the same race who constructed the *pandukuzhies* of the adjoining tracts. The absence of implements associated with those burials indicate their antiquity." It is worthy of mention that the builders of megaliths settled in places where they found raw material for their industries.

Early in the century, L. K. Ananthakrishna Iyer made a notable contribution on the megalithic monuments in Cochin in the *South Indian Oriental Encyclopaedia,* and K. K. Sen Gupta, State Geologist, in the *Journal of the Indian Anthropological Institute.* R. V. Poduval published an account of his excavations on the Cardamom Hills in the Travancore archaeological reports for 1936 and 1937, and A. Aiyappan of his excavations in Malabar in the *Journal of the Mythic Society.*

It is worthy of mention that the study of primitive tribes living in our own times, and thus coming within he range of modern prehistory, is extremely useful for an understanding of the earliest inhabitants of the land. Like the Veddahs of Ceylon, the Malapantarams, the Kadars, and the Paniyans of Kerala afford us a glimpse into the past. Their customs bespeak a people devoting little thought to their subsistence which nature provides in plenty. Their dwellings are of the simplest type, being rock-shelters, or breakwinds, resting on a

junglewood post, or small huts made of junglewood and leaves of wild plantain. Their only weapon is the digging spud. They are food-gatherers, and that, by hunting and collecting tubers found in the jungle. They illustrate a people without leaving behind any trace of archaeological value.

II

EVOLUTION OF INDUSTRIES

A. Palaeolithic Phase

THE PALAEOLITHIC Age is largely an age when man lived in rock caves and open places on river banks. At a given period in the Pleistocene, one can take almost without selection tools from South India, Africa, and South England, which show identical technique of manufacture and form. In all other areas, too, the same evolution can be traced leading up to, and developing from, the forms and methods of manufacture. In both South and Central India, there is abundant evidence of core culture.

H. D. Sankalia's discovery of skeletal remains of Stone Age at Langhnaj, Gujarat, is the most significant of the recent discoveries bearing on the Stone Age man. "Along with microliths and a large number of bones, and a negligible quantity of pottery, about 12 human skeletons have been so far found. These are of fairly tall, thin, dolichocephalic people with a slight prognathism. The above remains were found below four feet from the surface which presents a buried soil phase. The Langhnaj culture is likely to be considerably old — maybe towards the closing phase of the Pleistocene. They avoided thicker jungle in the interior." No excavation has so far unearthed the existence of a Bone Age in India before the Stone Age as found by Raymond Dart in Transvaal. The background of the Old Stone Age in India is the presence of climatic phases during the Pleistocene correlated with similar phases in Europe, and probably with others in South India and Africa, where pluvial conditions replaced glaciations.

It is stated that there are no caves and rocks in India containing palaeolithic remains as in Europe, but the occurrence of the Kurnool caves, and others in Central India, with palaeolithic and microlithic tools, disprove it. The lithic caves that have been discovered and examined in Tirunelveli, Tiruchirapalli, and Pudukottah indicate that the caves were almost modern, dated as belonging to the beginning of the 6th century B. C. from the contents and inscriptions contained therein.

The occurrence of rock played an important part in the selection of sites for habitation by palaeolithic man. We find thicker settlements in South India than in North India. It is in the river districts of the south that palaeolithic man left traces of his culture. The Billa Surgam caves, of Kurnool, furnish clues to the early palaeolithic cave-dwellers of the southern region. In Kerala, we do not meet with the remnants of the Old Stone Age tools, except one palaeolith found at Kanyakod hill in Malabar, probably because of the impenetrable forests which primitive man could not clear. Quartzite seems unavailable in the area. Wooden implements may have replaced or supplemented stone tools.

The Billa Surgam caves furnish evidence that caves mentioned in Hindu epic legends were possibly palaeolithic in character: they are Magdalenian or earlier.

V. R. R. Dikshitar believes that systematic excavation of caves in South India may reveal that the Indian Cave Age could be dated contemporaneous with European hill caves, and he invites attention to the unlimited scope for research in South India in this direction owing to the abundance of material for manufacturing tools suitable for palaeolithic and neolithic man.

Quartzite Finds

Apart from rocks and caves, the laterite formation of the coast and older alluvia of rivers and lakes contain relics of the Old Stone Age. It is necessary to undertake more extensive examination of all coasts in South India, particularly of Kerala. An examination of the palaeolithic finds shows that man went in search of quartzite. The majority of the finds are made of quartzite which is more common in Southeast India.

Surface indications of Vadamadurai observed by Krishnaswami in 1936 yielded a large number of handaxes made of big pebbles. The student of quaternary and prehistoric archaeology will recognise Madras and its environs as the foremost place for the study of prehistoric antiquities. We have a handaxe industry and the majority of implements are made of quartzite. Pallavaram and its environs are considered to have been the favourable abode of palaeolithic man. His tool is a handaxe, essentially pear-shaped or oval, flaked on both sides in such a way as to produce a continuous cutting edge. Such tools are found as far as the Cauvery and the Vaigai in the south, in the west bounded by Bombay, in the north bounded by the Narbada, and in the northeast as far as the upper reaches of the Sone which is a tributary of the Ganges. Quartzite is not available in Kerala, but laterisation in the mid-Pleistocene gravels pointing to the presence of the Madras industry is seen on the West Coast. It is possible that the laterite layers may have appeared in Kerala during the palaeolithic period, and it is entirely possible, as indicated by the Varkala finds, that palaeolithic man was active in Kerala.

African Evidence

It may be pointed out in this connexion that, in spite of the huge quantities of palaeoliths lying in the

various museums of India, we have not yet succeeded in getting sufficient human remains of any of our Stone Ages barring Sankalia's finds in Gujarat. Already vast studies are in progress in South Africa. Dart and his colleagues have obtained fossil evidence for the evolution of man in the African continent. L. S. B. Leakey has creditably amassed fossil remains from many remote prehistoric epochs; his study reveals a complete developmental schema, from the earliest ape-like creatures to the first human tool cultures, and he concludes that "it is 100% certain that man originated in Africa." However, other authorities are equally firm in their commitment to the belief in "parallel evolution", and in this connexion one may recall Hooton's words: "I refuse to regard evolution as a sort of unilocal miracle which could have happened but once, and that the one-site theory was a 'Garden of Eden type' based more often on ethical reasoning than scientific data." With the fine work of Oakley on the evolution of the human skull, the African evidence on the evolution of man and his culture cannot be overlooked.

In view of the above African evidence for the evolution of man, the Archaeological Survey of India has to make an earnest effort by securing human fossil remains and evidence to strengthen its arguments for the evolution of man in India. We have now evidence that the Early Stone Age man lived throughout the sub-continent in all the river basins. As B. Subbarao envisages, the problems for archaeologists are twofold in India: "The first is physical anthropology in which there is more scope for cooperation between the two disciplines; the second is the problem of study of the material culture of (the various) communities in an attempt to understand and correlate living human types with those of the past. This type of approach may be expected to aid the archaeologist in his quest for an

understanding of the life of communities whose material relics he unearths."

B. *Neolithic Phase*

The New Stone Age marked a period when man made large strides. Having two hands and a curious tendency to tinker in inventiveness, and as a tool maker he was at new heights. The steady improvement of tools, weapons, and utensils, the extended conquest of the material, and the laying down of essential bases on which the society of the present is resting, are the features of the period. Men were bent on improvement of their hammers and axes, on raising the standard of comfort, and on evolving the impressive and worthy form of burial for their leaders.

Dechelette classifies megalithic monuments into :—

1. The *menhir* which is a tall, crude obelisk of varying height vertically planted on earth.
2. The *cromlech* which consists of a number of menhirs, more or less in a circle. In England, they are called stone circles.
3. The *alignment* is a group of menhirs arranged in open lines well-nigh rectilineal. They are associated with the cromlech.
4. The *dolmen* in stone covered or not covered with earth, and formed of crude vertical blocks of stone supporting a cover-slab or slabs. The dolmen was used to cover one or more burials, usually by inhumation.

According to K. R. Srinivasan, megalithic burials are known as *kurangupattadai* which means worship of the monkeys, and are associated with a legend relating to the monkey hordes that followed Rama. Most of the above types of monuments are found on the slopes of hills or hillocks or amid rocky outcrops owing to easy availability of stone.

III

TRAVANCORE'S DOLMENS & MENHIRS

THE DOLMENS are huge structures of large unhewn blocks of stone resting on two or more others placed erect. They are found scattered on the long chain of wooded hills of Central and Southern India, and are known as "stones of the monkeys of India". Most of the primitive tribes of the present day evince no interest in them. The people of Anjanad call them *valividus* or abodes of the monkeys. The Uralis call them *pandu-kuzhies,* pits made by the Pandus or Pandavas to whom are ascribed all mysterious monuments.

It is said that in some parts of France the peasants will not shelter under dolmens at night, but the Malapulayas of Anjanad have no such qualms of conscience. They sit under them when grazing cattle. Borlace and Stukeley considered that in England they were connected with the activities of a shady priesthood. Others ascribed them to a race of dwarfs, though the bones found in them represent men of sufficiently ordinary stature! The Uralis believed that the dolmens were places where treasure was hidden.

Two Varieties

In Kerala, dolmens are burial chambers in which people of late prehistoric or protohistoric times buried their people. There are two varieties of them—the holed and the holeless. For the holed type extravagant claims have been made. Thus Elliot Smith averred that, "scattered more widely in Palestine, the Caucasus, France, India, and elsewhere, holed dolmens are found which undoubtedly represent crude copies of the serdab of

the Egyptian mastaba without the tumulus. Far more widely diffused in other, often distant, parts of the world ranging from Britain, Scandinavia, Holland, France, Spain, Portugal, North Africa, Palestine, the Black Sea littoral, India, Further India, Indonesia, Korea, Japan, and Oceania to America, the dolmens without the holed stone blaze the track of diffusion of a very distinct type of archaic culture which was the first to encircle the world. These types of dolmens made their first appearance in Western Europe with what is known as the passage dolmen, which Montelius, Sophus Muller, Dechelette and others have clearly demonstrated during the last 30 years....as an imitation of rock-cut temples. India seems to have enjoyed a civilisation which seems to have been inspired by Elam (Harappa, Mohenjo-Daro — the Indus culture), and by maritime influence from the Mediterranean which introduced the megalithic culture in South India at an early undetermined date". This extreme example of diffusionism would find few supporters today.

In Travancore, dolmens are found in the wildest part of the mountains, and on the ridges and spurs of the Rani Reserve and the Cardamom Hills. In the Rani Reserve, they occur invariably on the crests of hills, and are of the holeless variety.

Anjanad Dolmens

Dolmens with three supports and a cover slab are found in the Anjanad Valley, and with four supports in the heart of the Rani Reserve. The one found at Kadukutti, on the crest of a hill, was rectangular, and measured 8 feet x $2\frac{1}{4}$ feet above the ground. Lengthwise, it had one slab on one side, while, on the other, two formed the walling. Sideways, there was one on each side. The flooring was

also paved with stone slabs. The capstone was 7′ x 7′ x 8″, and roughly triangular. There was only one gallery. This dolmen, probably belonged to the earliest times, as it was made of unhewn blocks of stone, and was of the holeless variety. The existence of boulders lying about the place showed that it was covered over with them, but excavation did not yield any results.

The holed variety is found on the hills inhabited by the Malayarayans. They stand facing the north and the south, with the circular hole on the south. A round stone is fitted to the aperture with another acting as a lever to prevent its falling away. The sides as well as the stones on the top and bottom are single slabs. To this day, the Malayarayans make similar little cells of stone, the whole forming a box a few inches square. The presence of a circular hole laboriously cut through one of the side slabs seems to point out that the soul was expected to return at length to the tomb, and probably to re-enter its former human body.

In the vicinity of Marayur, close to the banks of the Thalayar or the Pamba, a branch of the Amaravati which flows into the Cauvery, are found a large number of dolmens, some single, others contiguous in groups, or in rows. The whole country nearby is studded with them, and they lie scattered on several hilltops. Here, on a flat high tableland, are seen a large number of dolmens in groups of three, four, or five. Around each is a circular packing of roughly hewn stones or boulders. These groups of dolmens are distributed in a circle facing east to west. A few are also in the north to south direction. The upright stones are rectangular in shape, and are 10′ x 5′ x 7′. The capstone is 17 feet x 7 2/3 feet. The floor is paved with a flat stone slab 9½ feet x 4 feet, and

over the capstone are found remnants of rubble stone packing. There is a semi-circular entrance to the dolmen on one side. Most of the dolmens have four uprights, but one dolmen in some goups has only three uprights, leaving one side open. At Vadathupara, in the Malayatur Reserve, a dolmen consisting of four uprights, but smaller and cruder in shape than those in the Anjanad Valley, was found.

Another type of dolmen is found in Mattupatti on the Cardamom Hills. Here, the chamber is buried in the earth showing only the capstone above the ground. This type is also found on the Nilgiris. About 15 yards from the dolmen was found an alignment of monoliths or menhirs planted in the earth at equal distances, some taller than the others, but impressive.

Saunders excavated six of the graves on hill tops at Thondimala in the Poopara Range on the Cardamom Hills. They were situated in a row, the graves being close to one another. After the removal of the broken stones that marked the spot, a flat stone was found. Underneath, there was a large urn, the mouth of which was 15 inches in diameter. It had a vertical height of 3½ feet, was placed in a vertical position on the ground, and was firmly embedded in clay and gravel. It contained eating and drinking vessels, vases, *chattis* of various shapes and sizes, some of red clay, others black-polished both inside and outside of very thin material and very brittle to handle. They were embedded in very fine clay that seemed to have silted and partly filled up the large urn, and the small vessels were filled by the same clay very closely packed, and were wedged one on another in such a manner as to make it difficult to remove them unbroken. Saunders was able to identify one of the bones as the hip bone of a man. On the top of an urn was found the blade of a sword, almost completly rusted, about 2½ feet long, with no sign of a handle. Inside the urn were found two spearheads,

and what appeared to be an iron chisel. The urn itself and the vessels found inside conform to the various types of what is called Iron Age pottery, some of which were taken from Tandikudi in the Palni Hills and other parts of Madurai district, but most of which were from the Nilgiris, Coimbatore, Malabar, and Tirunelveli districts.

Bison Valley Excavations

Excavations made by Poduval in the Bison Valley, also on the Cardamom Hills, near Thondimala, revealed a group of four dolmens which were parallel to each other, and faced the Muttukad Valley. One dolmen was in good condition, and measured as follows:

		Length	Breadth	Height	Thickness
Capstone	....	10′	6¼		¼′
Sidestone	....	7 1/3′		5½′	½′
Backstone	....	5 1/4′		5′	½′
Inside width	....		4 1/3′		

More dolmens were found by him on the Venad side of the Bison Valley on the Muttukad ridge. Of them, the first was a group of four dolmens, three in front facing south, and the fourth in the back facing east. The front of one dolmen was covered by a standing stone 4′ x 3′ 4″. A dismantled rubble masonry surrounded the group, and the inside was paved with stone slabs.

Poduval's excavations at Tengakkal, near Vandiperiyar, disclosed a cist with two burial urns, one of which was 5 feet 3 inches in circumference at the mouth, 7 feet 1 inch in the middle, and 2 feet 1 inch in height. The smaller one had a circumference of 3 feet 8 inches at the mouth, 5 feet 6 inches at the middle, and 2 feet 6 inches in height. They were found side by side with an intervening space of 1 foot 4 inches. The thickness of the bigger urn was 11/16 inch, while that of the smaller, ½ inch. The bigger urn had a ring chain with parallel

symmetrical ends. There were cists in a stone circle with a circumference of 55 feet. The relics belong to the neolithic period.

Trial diggings by Poduval at Velimala, in South Travancore, brought to light 25 sepulchral urns. One of them contained iron axes. The pottery of the burial urns at Velimala and Vandiperiyar was not painted, and had hardly any decoration. The larger urns had a chain-pattern or bead-pattern drawing on the exterior close to the mouth. The small pots found inside were of the "thin slip" variety. Two of the smaller pots found inside were wide-mouthed with narrow bodies and round bases. Poduval estimated that the relics, which were very fragile on account of their being buried in damp earth, belonged to the Iron Age.

Loss of Early Tradition

Dolmens are still erected by some tribes — the Gonds, the Mundas, the Bhils, the Kurumbas, and the Malayarayans. Writing on the Kurumbas and the Irulas, Walhouse said, "they make small cromlechs for burial purposes and place water stone pebbles in them." In no case are they of the same size characteristic of the prehistoric phase of civilisation. The earliest found in Anjanad and the Cardamom Hills are the largest. Those found on lower elevations at Malayatur are the smallest. The loss of this early tradition is evident now among the tribes. Grigg points out that the Kurumbas of the Nilgiris deposit a bone in a death house — a small cromlech surrounded by upright stones and bearing some resemblance to the more ancient cromlechs found on the hills, and made by their fathers. According to W. H. R. Rivers, the Todas furnish an example of a tribe at a lower level of material culture in a district filled with remains

of a fairly high level of civilisation. Sarat Chandra Roy observed the same features in Chota Nagpur, and Cooper in Assam. Among the Malayarayans, who still erect miniature dolmens of small slabs, a loss of culture is detected, as they do not manipulate large stones as their predecessors did. Kerala exhibits an instance to illustrate the loss of dolmen culture.

Munn points out that the dolmen-builders of the Deccan were once mining for gold, copper, iron, and diamonds, and that Bellary and Dharwar, where the dolmens are the thickest, are riddled with old workings of gold, copper, and iron. The correspondence between the occurrence of minerals and megalithic monuments supports the contentions of Munn that the builders of megaliths settled down in places where they found new material for their industry.

According to Vincent Ball, gold washing as practised in India "is an example of human degradation." It was found among some of the primitive tribes. The Gonds, who were assiduous gold washers, till recently erected miniature dolmens, and show strong signs of continuity with the more archaic tradition. The Kurumbas, found in the Wynaad, who are the chief gold washers of Kerala, also erect dolmens.

Menhirs

Menhirs are found in parts of North Travancore on the Cardamom Hills. The one found in Marayur is 3 feet high, and is known as *vathamkolli.* Poduval found four menhirs and a group of dolmens in the grassland of the Periakanal-Devikulam road in a damaged condition Trial diggings were made in two places. The first was made beneath a menhir 2 feet 7 inches in height from the surface, 3 feet 5 inches in width, and 3 inches in thickness. Four feet below the

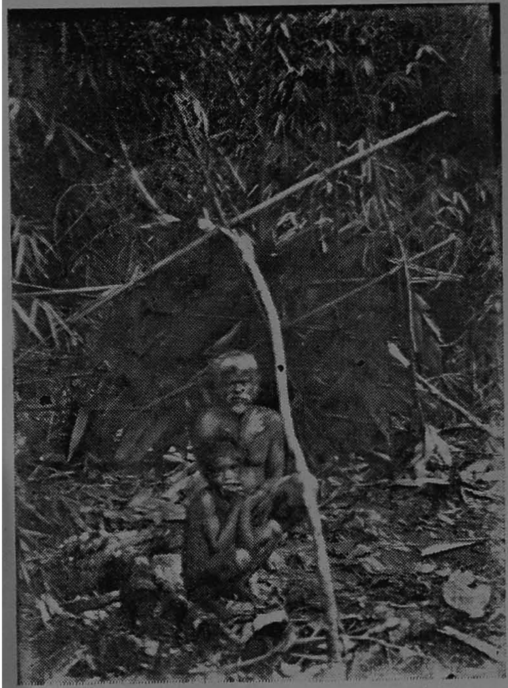
surface was found a burial urn covered by a stone slab 1 foot 4½ inches square and 4 inches thick, which formed the lid. The urns were 3 feet in height, 5 inches in thickness, and the diameter of the rim was 1 foot 6½ inches, the inner diameter being 2 feet 4 inches. Inside the urn were found a *chatti*, three broken pots, and one iron axe 5½ inches long and 3¼ inches wide at the sharper end, and ¼ inch in thickness.

Excavations at other menhirs revealed more or less the same results. The urns were found to be coarse earthenware, imperfectly baked and ornamented by a circular chain pattern at the rim. Their contents were mostly earthenware domestic vessels such as pots, pitchers, pot stands, bowls and flat-bottomed *chatti* with red and black surface. The discovery of iron at the site of the menhir showed that the monuments belonged to the Iron Age. The menhirs were probably memorial stones.

Erratum to illustration (Page 1):

Instead of "Top : Breakwinds are a simple type of the Malapantarams.....................dolmens"

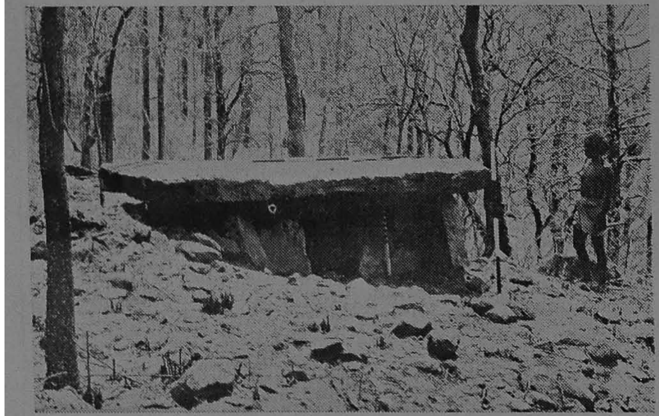
Please read as "Breakwinds are a simple type of the Malapantarams, one of the few tribes in the hunting stage of civilisation".

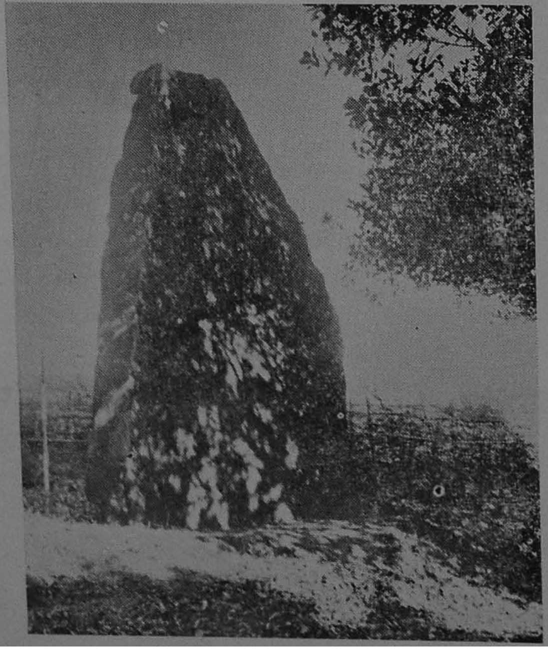


No other prehistoric remains are so startling and so evident even to the layman as the megalithic monuments which are scattered, in large numbers, in several parts of India. Megalithism prevails as a living institution among Kerala's pre-Dravidian tribes.

KERALA'S MEGALITHIC MONUMENTS

Top: Breakwinds are a simple type of dwelling of the Malapantarams, one of the few tribes who still erect miniature dolmens. *Centre:* A dolmen, in the Anjanad Valley, with rubble stone packing over the slab. *Left:* A dolmen, of small size, in low country in Malayatur.





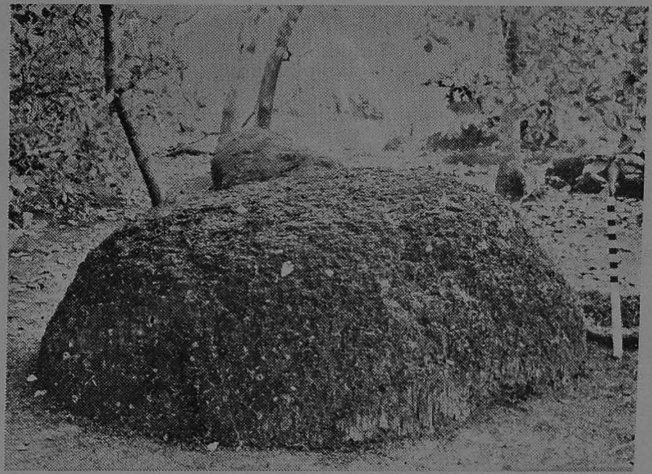
KERALA'S MEGALITHIC MONUMENTS

(Continued)

The geographical features of Cochin fall into three parallel strips, each of which has distinctive monuments. While on the hills numerous dolmens, multiple and isolated, are found, there are, on the laterite plains, menhirs and megaliths of the umbrella series; and, on the alluvial seaboard, urn burials with some menhirs. We come across also hood-stones, hat-stones ***(topikals)*** and rock-cut caves.

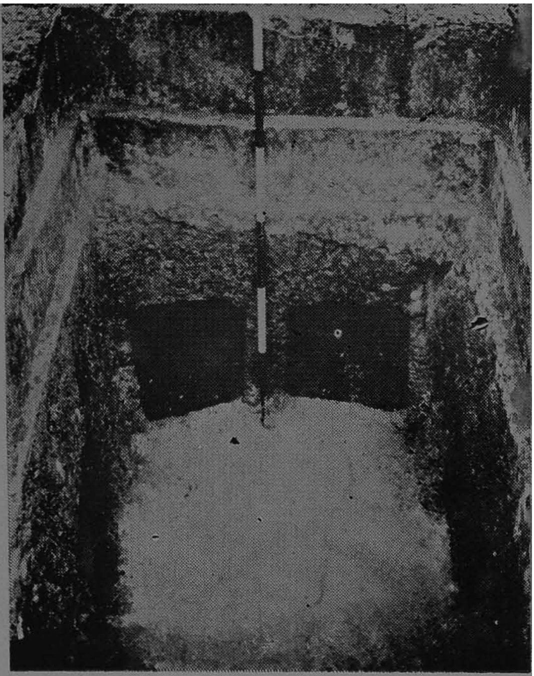
Left (Top to Bottom): A group of dolmens in a stone circle at Karikulam; A dolmen showing entrance at Vanlampara; and a menhir standing high above the laterite ground at Komalapara Thandu.

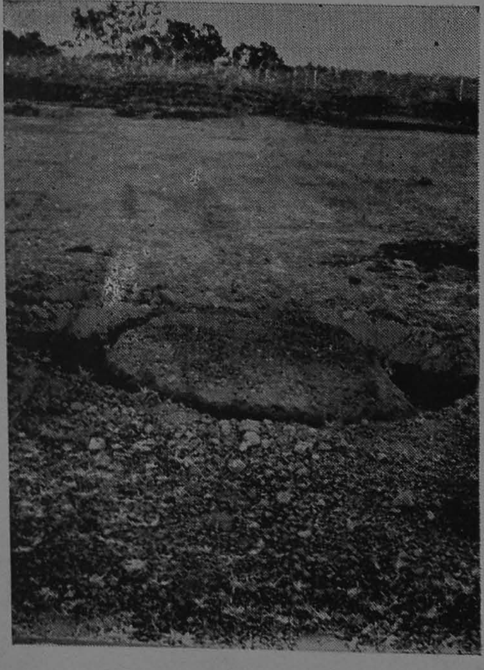
Right (Top to Bottom): A **kodaikallu** (umbrella stone); a hood-stone (it is like the **topikal** without supporting slabs) at Cheramanangad; and Pottery obtained from Porkulam (about $2\frac{1}{2}$ miles north of Kunnamkulam) where rock-cut caves, dolmens, port-hole cists with stone circles, and urns have been found.



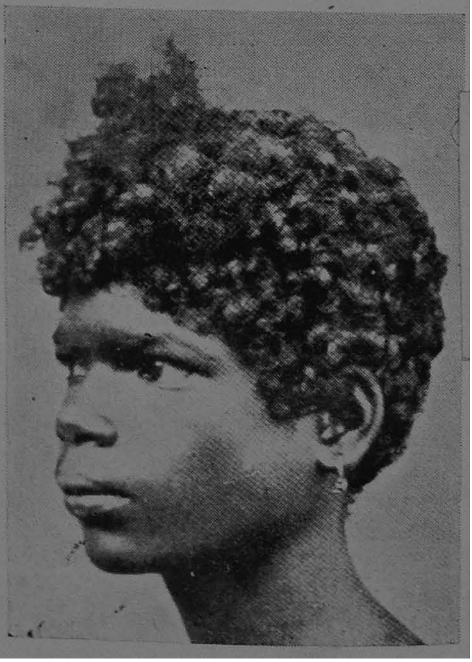
Right: A multiple rock-cave, in Cochin, sepulchral in character.

Below: A rock-cave in Malabar showing the circular lid above. Rock-cut tombs are mostly found in Malabar, and are considered a variant of the megalith.





KERALA'S MEGALITHIC MONUMENTS



A typical Urali. This tribe is found on the highlands of the Peermade and Thodupuzha taluqs in Travancore, and mementos of their remote past are found in the dolmens and alignments that lie scattered about them near their habitations.

IV

MEGALITHS OF COCHIN

COCHIN'S geographical features seem to fall into three well-defined parallel strips each of which contains distinctive monuments. Dolmens, multiple and isolated, are found in the eastern mountainous region composed of granite gneiss and charnakite; the rock-cut caves, menhirs, and megaliths of the umbrella series occur on the laterite plains; and there are urn burials with some menhirs on the alluvial seaboard. This area is noted for its hood-stones, *topikals* (hat-stones), and underground rock-cut caves, none of which is found on the other side of the Ghats.

The *kodaikals* (umbrella-stones) are found at Eyyal, a village 17 miles from Trichur. Of about 35 of them, only three were found pulled down. Each *topikal* rests on four quadrantal clinostatic stones joining together into a square at the base on the outside, and levelled in such a way as to close up along diagonals of the square. The hat-stone is a low cone on a wide circular base which is chambered towards the inside presenting a circular edge with a pendant appendage. The verticals are rudely triangular laterite stones with the base underground. They are 9 feet in height from the apex to the middle of the base which is 5 feet long, while the other measures 7 feet x 4½ feet above the ground respectively. The excavated vessels were most fragile, and a few bones, which were not readily distinguishable, were found. Numerous *kodaikals* are found at Vellarakal, in the Talapilli taluq, half a mile northeast to the 19th milestone from Vadakancheri to Kunnamkulam, some of them being well-preserved. The place is full of monuments, consisting of hat-stones

and umbrella-stones in place of dolmens, menhirs, and cromlechs.

The hood-stone is like the *topikal* without supporting slabs; the capstone rests directly on the ground. It has the nearest appearance of a *kundankudai* without a handle. Porkulam, about 2½ miles north of Kunnamkulam, and Cheramanangad are the main sites where they are found.

Rock-cut Caves

The nearest parallel which the rock-cut caves bear to the houses of the living is to the hut of the Todas with its domical roof and limited access from the ground outside. But the Toda huts are not conical and round as are these caves. Porkulam is about 50 feet above the sea level. The characteristic monuments of the area, viz., *topikals* and *kodaikals*, are not found elsewhere.

For the construction of these caves, the surface mass of laterite is first scooped out by the cave-builders, sinking thus a scooped pit into the rock, usually rectangular or nearly rectangular. Into the straight face of the rock is then cut a small rectangular entrance, a little above the floor level of the open quadrangle, or flush with it. Through the narrow opening measuring on an average 1½ feet square, which hardly permits a man to crawl through on all fours, is the hard laterite hollowed out and the cave shaved and fashioned. The floor of the interior of the cave is one or two feet lower than the floor of the court outside. The caves are circular or oblong in plan. While the vault is domeshaped, caves without a rectangular floor and horizontal ceiling are also known. On the inside of the caves are benches cut out of the rock, and varying from 6 inches to 2 feet in height. Some of the caves have a single bench on one side, while

the others have none at all. A rock-cut pillar, rectangular, square, or round is sometimes left standing in the middle of the floor rising to the centre of the vault. It is absent in Chovanur, Eyyal, and Kattampakal. In Cochin, the caves face east or east-southeast, while the predominant orientation of megalithic monuments and rock-cut caves is eastwards. What is most significant about Porkulam is that in an area of two acres, *kodaikals,* dolmenoid cists, and urn burials covered by granite slabs enclosed by circles and caves are found existing side by side, each keeping its respective place, as if all were contemporaneous and part and parcel of the same cultural unit. The monument was finally sealed with a capstone.

Almost all pottery is wheel-turned, the smaller pots being burnt by inverted firing under reduced heat in the kiln. The available specimens are black. The pottery from Coimbatore and Tirunelveli, and those from the Cochin megaliths and rock-cut caves fall into the same culture complex. The evidence of iron implements obtained from the Kerala caves and megaliths has an important bearing on the nature of the former. Apart from such objects as blades, hatchets, swords and billhook, which are usually found in caves and megaliths, there are a few other striking objects. Babington found a trident.

It may be mentioned that local tradition ascribes a Buddhist origin to the megalithic monuments. They were regarded as the abode of hermits when Buddhism and Jainism were popular in Kerala. Sarma argues that the caves are not Buddhistic in origin, as no object found in them has any remote association with Buddhistic form of worship. A general feature is a stone circle which is found to demarcate the megalithic tombs in Cochin, Malabar, and Coimbatore. According to B. K. Thapar, the technique and

the fabric of the pottery recovered from the monuments are identical with the megalithic ware of Brahmagiri and other sites in Central and Southern India. Subbarao points out that the typical tripod vessels of Porkulam suggested to Gordon-Childe a Far Eastern origin.

Excavation of Dolmens

Numerous dolmens are also found on the Cochin hills. A number of them bounded by a single stone circle would indicate the communal character of the monuments. Groups of them are found in the Palapalli reserved forests on the gneiss uplands of Cochin as in the Anjanad Valley. They are built on bare rock within 3 or 4 feet of each other. Each dolmen has four verticals (orthostats) and a capstone. The orientation is east to west, 5' x $2\frac{1}{2}$' x $2\frac{1}{4}$' on the inside. They are also found at Karikulam, in a rubber estate at Pattikad, on the hills of the Vaniampara tract. Some of the dolmens are of the holed variety. Near the Adirapalli Falls of the Chalakudi river is a low dolmen surrounded by a cairn concealing the monument almost up to the capstone. The monument is oriented northwest to southeast, and there is a U-shaped opening cut from the top of the northwestern orthostat.

The one opened by Ananthakrishna Iyer early in the century had two cells partitioned by a single slab of granite 6 inches thick with a circular ring about 12 inches in diameter. Two slabs extending from east to west were 7 feet long and 4 feet broad, and were very thick and massive. The interior dimensions were $6\frac{1}{4}$ feet x 3 7/12 feet. Excavation of one of the cells showed two big burial urns filled with earth, and *chattis* in a broken condition. They were said to be wheelmade and free from decoration except a few lines of simple mouldings around the rim of the lid, neck, and base of the urn. No lid covering the mouth was found, but

they were packed to the brim with fine red earth which is said to have been originally poured into them in the form of liquid, and which must have later become transformed into a mass similar in shape to the urn. It was in the mass of earth that bone bits, vessels and beads were found embedded. The smaller vessels might have contained offerings for the spirit of the dead, and the circular hole in the middle slab might have been the passage through which the spirit was allowed to take the offerings. The iron implements placed in the grave represented the tools used by them during their lifetime.

Early in the century, Sen Gupta found dolmens at Mukkathode on both sides of the tramway to Parambikulam. They were small cellars built of three upright slabs of stone with a capstone measuring 2' x 1½' x 1'. Some saints were stated to have passed their days in prayer and meditation. But trial excavations yielded no human bones. The entrance to the dolmen was directed to the west, there being no circular, oval or triangular aperture, as observed in other places. Most of them were simple and no evidence was observed as to their being covered with a cairn.

Sen Gupta also found a dolmen 8¼' x 8' x 4" on the edge of Muniara Thandu, north of Anapara Thandu. Its capstone was irregular and fractured at the northeast corner. The slabs consisted of banded gneiss. No stone floor was observed, and in this respect it resembled most of the dolmens of the State. The dolmen at Koothandan Thandu was the only one in the Cochin area that had all the sides enclosed by slabs, but the western one had a parabolic opening very neatly chiselled measuring 1½ feet wide at the lowest point, and this was closed by a slab 2½ feet x 1½ feet placed against it from outside. The inner apartments were 6 feet long, 3 1/8 feet wide, and 2 1/8 feet

high. The stone floor was covered with 9 inches of soil which, when removed, measured the height of the parabolic opening to $2\frac{1}{4}$ feet.

Menhirs

The menhirs are characterised by their rarity. The only instance was the solitary row of menhirs at Komalapara Thandu, the largest one consisting of an irregular and flat upright monolith $12\frac{1}{4}$ feet high and $7\frac{1}{4}$ feet broad at the foot. Three other small monoliths formed a row with the principal menhir in the north tilted to the west. Two menhirs were observed by Ananthakrishna Iyer in the Trichur taluq.

Krishnaswami found menhirs rooted in laterite and scattered far and wide. Usually they are monolithic, rude granite slabs oriented north-south, and standing high above the laterite ground. The menhir at Anapara, called *pulachikallu*, is reminiscent of a memorial stone on a battlefield, and commemorates a Pulayan woman (Pulachi) who died at the spot. Similar monoliths were found in Kuttur, Churakattukara, and Muttam.

Sen Gupta says that a hermit, Santa, must have used the pre-existing dolmen, and turned it to his own use. Ananthakrishna Iyer speaks of a reported discovery of a trident, a lamp, and a *hooka* in a dolmen. The reason for their occurrence may be found in the explanation given above. Jaques Bryer thinks that the numerous polished stone hatchets, pieces of crude pottery, granite millstones, and primitive tools found in the vicinity indicate that cromlechs served some other purpose than mere encirclement of funeral mounds. They have invariably openings facing the west — a fact of significance and importance bearing on the mode of disposal of the dead. The thick-lipped Kadars are reckoned by William Hunter as a remnant of a higher

race than the Pulayas and the Muthuvans of the Anamalai Hills which are thinly populated, and abound in stone monuments used by the primitive tribes for their dead.

V

MALABAR'S CAVE TOMBS

ROCK-CUT TOMBS are mostly found in Malabar, both at Chemmampara and Parambantalli hills. Babington was the first to discover them in 1819, and Rea in 1910, but their description lacked detail. Debreuil was the first to draw attention to the great interest attached to them by assigning a Vedic origin to them. The surface indication for the underground tomb is a semi-circular square slab of stone covering the top opening. The tombs explored by Babington had symmetrically arranged stone circles in typical cairns and urn burials as those at Adittanallur. At Feroke and Parambantalli, there had been much interference with the arrangement of the stone-circles.

The Department of Archaeology, Government of Kerala, in 1957-58, discovered two compartmental rock-cut caves at Panniyur Amsom in Chembad Desam. Fawcett found a rock-cut cave in the outskirts of Calicut, and mentions the presence of a granite door slab, and the absence of the bounding stone. The contents consisted of pottery and iron implements.

These rock-cut tombs and simple funerary monuments are considered places of *samadhi* of sages. The places where Bauddha sages attained *nirvana* are still seen at Kuttakallu, and are rendered unmistakable by the rosary of beads, lamps, arrows and earthenware found in them. The large pyriform urns are supposed to have been for in-urning old people when they are reduced by sheer senility to a frog-like shape and

hopped about. The eldest son would put the frog-like father in the urn with sufficient food to last him for a pretty long time, and bury it with proper rituals. In regard to urns found in Korkai and Eyyal, Caldwell refers to the popular belief that old people when diminuted by age were put in urns with food and provisions, and buried alive. Such urns are found in Tirunelveli, Madurai, the southern parts of Travancore on both sides of the Ghats, and also in the Wynaad area on the road to Vayatiri.

Popular traditions are not at all helpful in furnishing an idea of the significance of rock-cut temples of which there are a large number. Dolmens and other megalithic monuments are few and far between. Rock-cut tombs are considered a variant of the megalith. The simplest excavations in laterite for burial purposes are square or circular pits to receive large pyriform urns. Then we have the slightly more complex *kodaikal*, a hollow large enough for an urn with a ledge cut over the hollow for placing minor funerary articles, and a flight of two or three steps leading from the surface to the urn. A seat for the dead is a feature of most of the dolmens in common with the Feroke tombs and similar stupa caves. Cremated remains are found in many unmistakable dolmens; in fact, there is little evidence to dissociate rock-cut tombs from the general South Indian megalithic complex. Taking the crudeness of the pottery and the absence of bronze, A. Aiyappan considers them to be earlier than the Sulur caves which have been dated at about 200 B. C.

Urn Burials

The human remains found in megalithic monuments have been sometimes buried, but perhaps more frequently cremated. Occasionally, a single sepulchre contains traces of burial and cremation. Instances

of the whole burial of the body are found in Tirunelveli. Large jars, narrow at the neck and pointed at the bottom, were used, and the body must have been reduced in bulk by dissection or pounding before it could be passed through the narrow neck. Similar jars are found in Babylonia where they are coated with bitumen, a black smear prepared from the juice of *Abutilon indicum.*

Burial is supplemented by other precautions against the return of the ghost. According to Frazer, the placing of stones on the corpse might have had a similar origin. Graves are provided with mounds, tombstones, or enclosures to keep the dead from walking, or to prevent the ghosts from returning to the old haunts. Even now, the Kanikkar plant three stones, one at the foot, one at the middle, and one at the head to cow down the spirit of the dead after burial. By the side of each stone is planted a thorn of *Smilax zeylanica.* Two feet away from the grave, the way is closed on their return by drawing three lines over which the pebbles are laid on each line. Three thorns are planted over another line to prevent other spirits from going to the grave to snatch away the spirit of the dead.

The mode of disposal of the dead by burial is one of considerable antiquity. Macdonell and Keith hold that the epithet *agnidagdha* applies to the dead who are burnt in a funeral pyre. They also refer to *parotpa* (casting out) and *udhita* (exposure of the dead), and add that burial was not rare in the Rigvedic period. A stone is left between the dead and the living to separate them. The *Manimekhalai*, the *Tolkappiam*, and the *Poruladigaram* afford a mine of information on the modes of disposal of the dead in pre-Brahminic times They are old Tamil works belonging to about the 8th century A.D., though some scholars ascribe to them greater antiquity.

VI

LIFE OF PALAEOLITHIC MAN

THE STORY of man in India starts from the Palaeolithic or Early Stone Age some time in the Middle Pleistocene. He was no producer of food, since he had no idea of agriculture. He was an aimless wanderer. In the Lower Palaeolithic epoch, no habitations have been discovered. This may be because he took shelter under rock for protection from the sun and the rain. Throughout the whole period, the basis of subsistence was hunting and food-gathering in one form or other, which enables us to visualise a small population living in tiny groups of families following the animals that they killed in large tracts of country. Life was impermanent, precarious, isolated, and ideas could not be transmitted from group to group.

Towards the end of the palaeolithic period, man gave up nomadic life and settled in huts thatched with leaves. He avoided forest regions to escape from wild animals. Still he could not avoid them making inroads on his land. So it became necessary to live in small groups and communities, which were dependent on suitable material for making tools and implements as in Cuddapah, Kurnool, Nellore, Chingleput, and North Arcot. Even today, man is like nomadic man and old world customs are still in vogue. Carr-Saunders points out that as soon as early man began to have any social organisation, probably even as early as the Upper Palaeolithic, families and groups began to develop hunting and fishing rights over limited areas. These conditions are reflected in the primitive tribes of modern times, like the Malapantarams.

It is said that man knew how to make fire from the beginning of the palaeolithic times, and this predominantly human act was the foundation of all

future progress. Certainly fire marks a date in prehistory, more important than most of the revolutions of history. There is evidence of the use of fire in the Kurnool caves. The presence of cinder in caves shows familiarity with the use of fire by friction from combustible materials (wood),as man took to fiesh-eating besides fruits and roots.

Palaeolithic man eked out his livelihood by hunting. He ate roots, fruits, and tubers. As that was not enough, he obtained animal food. His kit of tools reveals his flexibility and his roving life. The Malapantarams are a tribe in the hunting stage of civilisation living in high forests. Their only weapon is the digging stick which perished under natural decay. Sankalia points out that bows and arrows, and spoke-shaves had come into existence in addition to earlier methods of snaring and capturing the prey. Bows and arrows are used in Kerala by the Kanikkars, the Uralis, the Muthuvans, and other tribes, among whom we witness the developments from the food-gathering stage through the intermediate stage of food-gathering-cum-food-production and early peasant economy.

When palaeolithic man felt like covering his body with some material available to him, he would readily use bark, leaves of trees, and skins of animals to cover his nudity. The bark of trees formed the clothing of the Malapantarams, while the Malavetans and the Vettuvans wore dresses made of leaves. The Thantapulaya used a *thanta* garment made of the leaves of a kind of sedge called *Isolepsis articulata.* The Kanikkars, till recently, were as nature made them, with a semblance of clothing.

Regarding the disposal of the dead, bodies were left in the places where they died. The Malapantarams continue the same custom even now,

Living in the Old Stone Age and in families with some tools and implements, early man was struck with the idea that stone was a symbolic expression of the inner spirit called goddess. From the prominence given to the mother, it is held that mother-right had its beginning in the family organisation. The survival of mother-right is observed among the Muthuvans, the Mannans, the Vettuvans, the Karimpalans, and others.

VII

NEOLITHIC TECHNOLOGY

THE Palaeolithic Age was closely followed by the Neolithic Age in South India. The transformation was gradual, but continuous and conclusive. Bruce Foote found 72 types of artifacts from neolithic sites; among them were unpolished tools and implements, but side by side with the polished ones, which suggest the gradual evolution of the intelligence of neolithic man.

Men of the Palaeolithic Age depended largely on the use of quartzite for making implements, but those of the Neolithic Age depended, where possible, on black-coloured trap which exists among the gneiss and granite formation found in Dharwar, Cuddapah, and Kurnool systems. That, according to Dikshitar, accounts for large neolithic settlements not only in Madras State, but also in other States. Mention may be made of a celt factory in Bellary where not only weapons of offence and defence were made in a polished state, but others like beads, buttons, discus, marbles, pendants, vessels, and phallus, besides a large number of human and animal figures, which show that their civilisation was far higher than that of the Palaeolithic Age. The find of a phallus is worthy of mention, as it is associated with Hindu religion.

According to Dikshitar, the extreme south of India, including Kerala, is not marked with the presence of palaeolithic settlements, but we find abundant material to show that neolithic man made his habitations at Sawyerpuram (Dist: Tirunelveli) and elsewhere. The sling stones and arrow stones found

there compare with those found in Europe. What si further interesting is the discovery of urns and cairns in Kerala similar to those found near Manamadurai, dolmens on the Palni Hills, and cairns near Kodaikanal, which belong to the Iron Age. They are believed to be indications of megalithic settlements, survivals of which are found on the Cardamom Hills and the Anjanad Valley.

Neolithic man carried on the profession of hunting. Those who took shelter in rocks and woods were tempted to hunt wild animals which they came across for a meal of flesh. It was a pastime for them and, side by side with hunting, they also practised fishing on a large scale in inland areas which offered them enough facilities. Cattle rearing formed another occupation. The tendency to domesticate animals grew with the progress of man who was a hunter to start with, and played a great part in the genesis of pastoral life.

It is known from neolithic sites that neolithic man was aware of the rudiments of agriculture, but he could not be credited with the knowledge of rice cultivation. To begin with, the soil was broken by stone hoes, and later they got the knowledge of forked ploughs. They perhaps used them with a ploughshare of stone, but the cultivation of any crop on a large scale was not possible. This age almost bordered on the Iron Age that was yet to come.

The people of the neolithic times also continued their old occupation of gathering roots and tubers, and lived on them. Honey gathered from the hives served them as a dish. Their food was simple, but meat and flesh of animals supplemented their diet. They were alive to some process of cooking and preparing dishes as evidenced by the existence of corn-crushers and millstones.

The dress of neolithic man was scanty. They roamed about with loin cloth, and the skin robe was a luxury. Leaves and barks of trees continued to serve as dressing material down to the modern times among the Kanikkars, the Malavetans, the Malapantarams, the Thantapulayas, and others, in Kerala. Beads served as one of the principal ornaments of women.

Arts and Crafts

One of the living crafts of South India is pottery, Bruce Foote, the first discoverer of pottery, suggested that originally kilns were not used for the purpose of burning the earthenware. Most of the vessels recovered were blackish at the top, and possibly imperfectly burnt. Though the various types of pottery obtained from neolithic settlements and graveyards indicate how the primitive mind worked, it is difficult, says Dikshitar, to credit the aboriginal mind with knowledge and skill for developing the art. The rough surface of most of the vessels, and poor decoration, show that the original craft could not be by skilled craftsmen. They bear a marked contrast to the pottery of the Iron Age which possesses attractive colours, polished surfaces, and handsome mouldings black in colour. The fast colouring of the surface is one of the remarkable features of the ancient pottery of South India.

Codrington points out that a superficial survey of the pottery of the cairns of South India and the Deccan suggests a common cultural unity. He mentions six types of ancient burials :

1. Urn burials like those of the Wynaad, and typified by Adittanallur;
2. Legged urns of pottery cists of all sizes typified by Perumbair and Pallavaram (Dist : Chingleput);

3. Cave tombs of Malabar;

4. Pit chambers cut at right angles in the rock with a central opening in the domed roof and closed by a capstone;

5. Some burial chambers beneath cairns of stone circles; and

6. Deccan stone cists under stone circles (which are dated from the 3rd century B.C. to the 4th century A.D.)

The importance of pottery in South India at this period, says D. S. Gordon, "is that the whole complex of ceramics, iron objects and burials is held together by the interlocking occurrence of the more characteristic iron types, the megalithic tombs with a port-hole slab, and, above all, the ubiquitous red and black ware. Besides being buried in megalithic tombs of many shapes and kinds, some involving two or three chambers and rock-cut tombs of similar style hewn out of laterite, the main forms of burial are in pyriform urns and large pottery sarcophagi. All these types of burial belong to the one basic South Indian culture, red and black ware being found alike with urn burials, sarcophagi, and in megalithic tombs. Iron-shafted tridents were deposited in urn burials at Adittanallur, in the megalithic cist at Raigar in Andhra Pradesh, and in a rock-cut tomb in Malabar. Certain modes of burial and funerary adjuncts, such as tripods and four-footed urns, are, to some extent, regional, but the megalithic grave with a port-hole stone has a very wide distribution extending to the far south and covering the whole of the area of the Dravidian culture complex."

Our knowledge of South Indian iron types comes entirely from grave deposits. Graves in South India are provided with a wide range of iron weapons,

tools, and utensils, particularly those of Adittanallur. The Asuras of Ranchi plateau in Bihar have been regarded as the Asuras of the *Rigveda*, and the originators of iron-smelting in India. They are said to be more backward than their Munda neighbours.

With the arrival of metal, the processes of figuration developed. From that time, the engraving instrument, or burin, became the principal tool. The only prehistoric rock-carving in Kerala is the Edakal Cave in the Wynaad, which is about 56 miles from Calicut. One part of the cave contains inscriptions of ancient and mediaeval historical times deciphered by T. Hultzsch. Of much earlier date are the carvings. They completely represent human beings, animals, and objects for human use, and symbols, but do not run into each other. The more interesting features of the sculpture are the frequent human figures with peculiar head-dress. The usual Indian symbols, the swastika and the sun, are of frequent occurrence. There is evidence of magic squares which are rude outlines conventionally drawn and associated with some magic or totemistic rites. Many appear to be men dancing in masks or masked head-dresses. It is said that the cave belonged to the neolithic times, judged by the find of a polished celt from the place.

Belief in After Life

The old habit of disposing of the dead to the elements, birds, or beasts was continued, but the people seem to have later believed that the spirit of man survived after his death, and, therefore, they prepared stone cists for preserving the remains of the dead. No doubt, there was the ancient custom among the aboriginals to erect mud huts in which the dead were buried. People dug very deep in the ground, and bodies were laid in them.

With the advent of the age of metals, a new stage was reached, and the body was placed in an earthenware pot which was placed in a pit and filled with sand. Along with the pot were laid the dead man's stone tools and implements side by side with some foodstuffs. Evidently, neolithic man believed in an after life. A lid was placed as a covering. The pit was a stone slab, and this indicated that it was a tomb. The shape of the tomb was oval, and it was large in size and surrounded all round by stones. For the erection of tombs they chose particular places for burial.

A large number of tombs have been found in Bellary and Coimbatore. This illustrates a diffusion of megalithic culture from one region to another. There was also the idea of ancestor worship, the rudiments of which were laid in the neolithic period.

Confining our attention to the bulk of deposits, we find that they constitute evidence of pottery freely used, some being in a good condition owing to the nature of the soil. In some cases, the pottery is reddish in colour, and in other cases black. The urns are thick, and not decorated. There are jars and ring stands in the burial site. A study of the *Manimekhalai* and the *Purananuru* shows that the erection of megalithic monuments continued till about the beginning of the 5th century A. D. It may be remembered in this connexion that urn burials were associated with ancestor worship. It is said that some of the temples were built on burial grounds devoted to ancestor worship.

The people of the neolithic period were worshippers of the phallus. What is most interesting is that a phallus and a ball were found in a crouching condition on the Kapgallu hill in Bellary. This shows that neolithic man worshipped the phallus which was

housed in a hut. The worship of the phallus and the phallic god is attributed to the aboriginals of the Neolithic Age. While the worship became advanced and popular, the god was considered the father of mankind to whom was found a spouse for the propagation of generations, and neolithic man much later transplanted the mother which palaeolithic man revered as Sakti for their primeval god.

VIII

STILL BUILDING

LEONARD WOOLLEY has stressed the possibility of unravelling the problems of the past by significant survivals among the existing tribes. In Kerala, more light is thrown on the problem of ancient burial customs by survivals of direct archaeological evidence among the primitive tribes. A few tribes exist who are still dependent on hunting, fishing, and gathering of fruits, roots and berries, as they did in the neolithic times. The bow and arrow, which appeared in South India before the advent of the neolithic industry, was an improvement on the throwing stick, for it could cover long distances. A brief account of some of the Kerala tribes is given in the following pages.

Malapantarams

The Malapantarams, who number 250, are a small tribe in the hunting stage of civilisation, and are found in the Rani Reserve of Central Travancore. They live in high forest where the average annual rainfall is 180 inches. Owing to the luxuriance of vegetation, they are within the tyranny of the jungle, and have not emerged completely from the hunting stage of civilisation. Food supply is one of the closest ties between man and his environment. The difficulty normally experienced in obtaining an adequate food supply necessarily forces them to develop habits of life other than those dictated by their natural inclination, Gregariousness would be here a positive disadvantage as the monotonous savage economy prevents concentration of population except that between the sexes,

and hence no evolution of classes. They live in small families of two or three in a locality. The lower the number, the easier is the food supply obtained. They do not stick to any one place, but move on to another, when the food supply is exhausted. Each pack has its jurisdiction for its wandering and supply of food. Among primitive groups in a niggardly environment, a growing population is a social misfortune. The Malapantarams average one per square mile, and they do not allow another of their tribe to encroach on their domain.

Being nomadic hunters, they make the simplest of dwellings. They live either in rock-shelters or breakwinds resting on single junglewood posts, and thatched with plantain leaves, which can accommodate two or three persons. The hut is circular and conical, and the floor is on a level with the ground. Boys and girls are housed in separate sheds for the night close to the parental roof. Of late, they have taken to the habit of making fire by flint and steel.

A Malapantaram family consists of the father, mother, and children. The father is the head of the family. The mother is devoted to the children. It would appear that, in the Rani Reserve, union is founded on the enjoyment of such bodily functions as copulation, gestation, and lactation. The family bonds between husband and wife are loose. They quarrel in no time, and the husband deserts his wife. Again, children are felt to be a burden. The difficulty of living is said to be the cause of want of attachment. Just for a measure of rice, a Malapantaram is said to have given away one of his children. Family bonds are stronger at Thalapara and Achencoil.

The low economic level is reflected in the social organisation, which lacks cohesion, because it should be prepared to break up when the food supply

decreases even a little. The larger the extent of land necessary for the support of a given number of people, the looser the bond between the land and the people, and the lower the type of organisation. Ordinarily, they possess a wooden digging spud. The dog is their indispensable companion when they go for hunting. They live on the pith of *Arenga wightii* and *Caryota urens*. The dead are left where they die, and the group leaves the place to live elsewhere.

Kadars

The nearest economic and cultural parallel to the Malapantarams is found in the Kadars of the Nelliampathi and Kadacheri mountains of Cochin on an elevation of about 2,000 feet above the sea level. They numbered about 937 in 1961. They are a survival of the food-gathering civilisation in India, and are of special interest to students of prehistory. Evidence of their simplicity is found in the fact that they used thc digging stick, originally armed with stone, and more recently with iron points. Their physical features, technology, art, and religious lore and concepts seem to point to real historical relationship between them and the Negritos of Malaysia. They are also said to represent the last surviving pocket of a once widely distributed South Indian population of food-gatherers who had been driven back into refuge areas by the successive waves of later immigrants into India and Malaya respectively.

Their original habit was to set up temporary camps of wind-screens, which was the original form of their habitation. The present rectangular hut is said to be the result of acculturation. Short bamboo tubes of about 4 to 10 inches in length are used as containers for liquids, and longer ones to preserve honey. Bamboo tubes are also used for carrying water. They make fire with strike-a-light.

The most typical product of Kadar industry is the ornamental comb which is said to be reminiscent of the major types of Malayan Negrito combs. Tooth-chipping is another feature of Kadar life. It was practised by the Malavetans of Travancore and the Rhaday tribe of Indo-China. It poses the possibility of their cultural ties with Southeast Asia generally, and the Negritos of Malaysia particularly.

The Kadars continue to conform to the basis of bilateral pattern of a truly classless society. A migrating tendency has been noticed in Kadar society for some time now. Despite the impact of modern civilisation, it is not uncommon to find among them members of single families living and hunting together as among the Malapantarams. They are monogamous, though instances of polygamy and polyandry are not unknown. Child marriages have been reported as a result of the scarcity of marriageable girls. The question of inheritance does not arise, as there is no private ownership of land.

In former times, the lush vegetation of the region made Kadar life free from want. No shifting cultivation is resorted to, and what they collect from forests is exchanged for rice.

The dead are buried where they die. No stone monument is erected to mark the spot. Sometimes a long stone is placed near the head of the corpse, and water is poured over the stone as being the last portion that the deceased is given to drink.

The Kadar terrain has been found suitable for the construction of a huge reservoir for the irrigation and electrification of the plains and cities. The project, on which work has already commenced, may bring about tribal disintegration, if not annihilation, by the submergence under water of a large part of their traditions and hunting grounds.

Paniyans

The Paniyans are found in the Wynaad area of Malabar, and in the Nilgiris, and numbered about 37,068 in 1961. A common tradition avers that they are of African origin, and descended from ancestors who were wrecked on the Malabar coast, but there seems to be no truth in it. Another tradition recounts that they were brought into Malabar from a far-off country by a Raja, who found them in a miserable condition. They are reckoned to have a marked Negrito origin, and retained their features in their isolated mountain retreat. They made fire by the sawing method.

The word 'Paniyan' means 'labourer', and the original occupation of the tribe was agriculture. They were almost wholly engaged in rice cultivation in the Wynaad. The women dig up roots and tubers. The men catch fish by damming up a river by flat bamboo mats and poisoning the water. They are monogamous, and each village has a headman who is presented with a bangle as a badge of authority. The dead are buried.

A little less primitive in their mode of life are the Uralis, the Muthuvans, the Kanikkars, and the Malavetans who are not only nomadic agriculturists, but also practise hunting. With nomadic agriculture follows matriarchy among the Muthuvans, the Mannans, the Malayarayans, the Kanikkars, the Kurumbas, and the Kurichiyans. The practice of erecting dolmens or planting stones at the grave is found among them. The bow culture goes hand in hand with matriarchy among the Muthuvans, the Mannans, and the Kanikkars.

Muthuvans

The Muthuvans, who number about 2,000, are found on the Cardamom Hills, the Kannan Devan Hills, Mannankandam, the Anjanad Valley, Anakulam,

and Pooyamkutty. Their habitat is over an elevation of 3,000 to 6,000 feet above the sea level, where the average rainfall varies from 100 to 160 inches. They look hale and hearty at this elevation. Tradition says that they came from Madurai and settled down on the Cardamom Hills.

To some extent, the Muthuvans present us with the picture of a natural family. A tract of a few square miles forms the jurisdiction of a small group of families, the members of which, besides making their living by hunting, fishing, gathering honey, and the like, have advanced a step further than the Malapantarams in that they have taken to nomadic agriculture. Their life in high forests has fostered the growth of communal life. The joint clearing of land for cultivation, the existence of dormitories for the unmarried young, the participation of all the village folk in funeral ceremonies the expenses of which are shared, and the existence of a village council for the adjudication of disputes bear ample testimony to the fact that they appreciate the advantages of communal life necessitated by the environment. The bond of clanship is very strong, and children take after the clan of the mother. Mother-right prevails among them. They are skilled in archery, and are one of the few tribes in Kerala using the blow-pipe. They bury the dead, and plant a stone at their head and feet.

Uralis

The Uralis, who are robust in appearance, and claim to be the original inhabitants of the forest, are found on the highlands of Peermade and Thodupuzha taluqs. Geographical conditions condemned them to a life of isolation. Though they numbered only 616 in the Census of 1931, of whom 454 were males and 162 females, in 1961 they were estimated at 2,597. Their huts are one-roomed and thatched with

reed. They have tree-houses, 50 feet above the ground, where they spend their nights beyond the reach of elephants. They live on rice, tapioca, ragi, cholam, and plantains. They are fond of animal food, but do not drink milk or consume cow products. They drink tea, living as they do now in the midst of tea estates. They wear a loin cloth, but contact with planters makes them use shirts and coats. Women are fond of jewellery, and they wear strings of beads round the neck.

Mementos of their remote past are found in the dolmens and alignments that lie scattered about them near their habitations. The Mannans of the adjoining hills were once a source of terror to them. It is said that the chief of the Mannans was the arbiter of their disputes, and that he inflicted heavy punishment on them if they did not give every year his head money and paddy. They marry by the exchange of sisters. Fraternal polyandry was prevalent among them. They have a high standard of morals. Members of a clan consider themselves as brothers and sisters.

All clansmen observe death pollution for 16 days, and share the expenses of the ceremony. The dead are buried. A stone 2 feet long is planted at the head, one at the foot, and one on each side. Inheritance was matriarchal, and evidence of its survival is seen in the nephew being the chief mourner on a man's demise.

The Uralis are deft in the use of the bow and arrow to kill animals that damage their crops. They play an important part in elephant-catching operations. They make fire with strike-a-light.

Pulayas

The Pulayas are a tribe of agricultural labourers who numbered about 61,097 in 1961. They are one of the earliest inhabitants of Kerala, and are found along

the coastal tract and in the interior parts of Travancore. Their darkness approaches the African, and A. H. Keane was of the view that they belonged to the Negrito race. Slavery was prevalent among them. The dead are buried. The nephew is the chief mourner on a man's demise. Among the Western Pulayas, the nephew inherited the mortar and the pestle, and the youngest wife of the dead. Inheritance is in the female line.

Kurumbas

The Kurumbas are found not only in Malabar (Wynaad area), but also in Mysore, Andhra Pradesh, and in Tamilnad. They are the descendants of people who lived on fruits and roots, and who were almost unclad. The jungle Kurumbas are very active in their habits, and are able to endure great fatigue. They are good at hunting wild animals. They bury their dead, and erect dolmens. They numbered 999 in 1961.

Cherumas

The Cherumas, like the Pulayas, are a tribe of agricultural labourers. When engaged in cultivation, they used to put on a few green leaves generally of the plantain tree. Round the waist, the leaves were laid, and a leafy cup formed their head-dress. The women also had the simple leafy dress, but now they wear a piece of loin cloth, blouse, etc. They are experts at stick-play, and their women sing in chorus at weddings. The dead are buried and a mound is raised over them. They are also the earliest inhabitants of the land, as Malabar was known as Cheraland from prehistoric times.

The Vettuvans are connected with the old tribe of Vedan who lived by hunting. They wore an apron of leaves tied round the waist. They are nomadic agriculturists, and are matriarchal. The

Aranadans of Nilambur are food-gatherers, and skilled in the use of the bow and the arrow. The Karimpalans of the Wynaad are nomadic agriculturists, and are matriarchal. So are the Kurumbas and the Kurichiyans. Most of them are in the vanishing stage.

Megalithism prevails to some extent among certain of these tribes. The Malayarayan tract is strewn with a large number of dolmens which formed the graves of their chieftains. They now erect miniature dolmens when a man dies an unnatural death. The Malapulayas plant a stone at the head, feet, and breast of the deceased. The Nayadis make stone representations of the departed, and they are planted in a circle.

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IX

DATING THE PAST

THE problem of dating the megaliths of Kerala is beset with difficulties, and it is discussed here in the broader perspective of their occurrence in other parts of India.

Three hypotheses have been advanced to trace the origin of the Indian megalithic culture. The first one derives it from the west across the land through the Punjab and Sind; the second, put forward by Eugenne C. Worman, derives it from Eastern Asia, while the third refers to their independent origin in different parts of the world.

Reubens' Theory

In dealing with the origin of megaliths in the west, Walter Reubens refers to the Asur tombs and the megalithic culture of the Mundas of Chota Nagpur. According to him, they have a western origin, and they reached India, through Palestine and Russia in the early Iron Age, and split in North India, one branch moving southwards, and the other, reaching eastwards as far as Chota Nagpur. The fact that all Munda and Asur graves hitherto opened contained iron implements may, according to Haimendorf, denote an ancient contact between the Austro-Asiatic populations and the materially more advanced South Indian grave civilisation, though Reubens' theory is not enough to explain the kinship between the Indian and Assam megalithism and ritual differences.

We find among the Gadabas and Bondos stone circles, dolmens, and groups of stone seats comprising some menhirs also. Haimendorf thinks that the megalithic monuments of these tribes belong to the Southeast Asian type. According to him, the essential elements of the megalithic culture of Assam, Chota Nagpur, and Orissa, which belong to the Southeast Asiatic group, must have developed and moved with the Austranesian migration in the movement of Austranesian races eastwards to Peninsular India.

The combined ethnological and archaeological evidence leaves no doubt that these migrations occurred in neolithic times. This is seen by the sheer coordination in India in the distribution of the shouldered polished celt, and of the Austro-Asiatic languages; no other people but the Austranesian could have been responsible for the spread of the highly-developed neolithic civilisation characterised by the long polished celt with quadrangular section observed in the Peninsula as far as the Godavari.

H. Congreve believes that one of the Celtic migratory bands, instead of pursuing the route along the coast of Africa deviated from it, crossed Persia and Baluchistan, and eventually found their way into South India (Dravidanad). He opines that the Turanean or Scythian race became settled in the southern portions of India after an invasion by a more southern route than the Aryans, and that this route lay along the Malabar Coast where cromlechs are found as far as the opening of the Ghats through which they penetrated to the southern plains.

Egyptian Origin

Elliot Smith propounds the theory that the Egyptians invented the rock-cut tombs, that the other Mediterranean peoples adopted the use of such tombs from Egypt, and that the dolmen represents the crude and

overgrown copy of the ancient mastaba. To him it is inconceivable that any other conclusion can be reached, but that tomb-building evolved between the 4th and 5th millenia,and was handed on from people to people not only along the Asiatic littoral from that of the Red Sea to South Arabia and Persia, and then from India, Ceylon, and Burma to Indo-Malaysia, Japan, and the Pacific Islands, if not America. The distribution of the holeless dolmen blazed the track of the diffusion of a very distinctive type of archaic culture, which was the first to encircle the world This was followed by the diffusion of the holed variety over practically the same area. Both the types are found in Kerala.

B. B. Lal, who recently led the archaeological mission to Nubia, poses the question of the Dravidian origin of megaliths. He believes that his discoveries in Upper Egypt will establish a significant base between the ancient Nubians of Africa and the early Dravidians of South India. He says, "At Timas, the Indian mission dug up several megalithic sites of ancient Nubians which bear an uncanny resemblance to cemeteries of early Dravidians which are found all over Western India from Kathiawar to Cape Comorin. The intriguing similarity extends from the subterranean structure found near them. Even the earthenware ringstands used by the Dravidians and the Nubians to hold pots were identical. The vessels were meant for ritual offerings to the dead". Lal holds that, while the Indian megaliths date from 700 B. C. to 500 B. C., the Egyptian megaliths are at least 500 years older; the chronological gap indicates that the Nubians and the Dravidians came from a common centre of migration, probably from South Arabia or South Iran.

Mixture of Influences

Megalithic monuments in different parts of the world present such a uniformity of structure that it is

hardly compatible with the theory of independent origin. Montelius focusses attention on the continual influence of the east on the west from early times. According to Ruggles Gates, the full neolithic is less known than the pre-neolithic, and that the neolithic population of Java was relatively dense. Heine-Geldern believes that the Southeast Asiatic (Austranesian) having considerable Mongoloid mixture, which has come down to Assam and Burma, migrated westwards into India and introduced the tanged adze between 2500 and 2000 years before the Aryan invasion. Perry describes the migration of folks from India and Further East, and expresses the possibility of connexion between India and Java as early as 700 B.C., and the spread of culture thence eastwards. He refers to the possibility of a stone-using people for graves among hill tribes. In Watubella, the dead are buried, and a stone is planted at the head and foot of the grave. This practice is in vogue not only among the Kabui Nagas of Assam, but also among the Muthuvans, the Mannans, the Uralis, the Kanikkars, the Kurumbas, and the Kurichiyans. Ehrenfels' correlation of megalithism and mother-right seems to indicate that the former must have reached India, not only in a series of cultural waves, but also alike from east to west.

Use of Iron in Megaliths

Lewis thinks that the building of dolmens was not confined to one race, and circles to another, but that megalithic construction was a phase of culture through which many races passed in restricted localities without regard to any racial differences between them. W.H.R. Rivers asks, "May there not be a relation between the passage of megalithic culture by sea and its association with the use of metals? May it not have been the knowledge of the use of metals which first made possible the building of craft

fit to carry man to such distant parts of the globe? It would be easier to accept the ethnological unity of the megalithic culture if we assume that it was carried by small bodies of migrating people peacefully received." Elliot Smith makes the Phoenicians the transmitters of the megalithic culture in the West about 800 B.C. It is the view of Gordon that iron was introduced in South India by people "who cannot be other than Dravidian between 700 and 400 B.C." He is tempted to associate the people with the early traders from Southern Arabia, thus forming a coastal entry for the iron-using communities.

On the other hand, Gowland, the great metallurgist, refers to the indigenous production of iron, and expresses the opinion "that the smelting of iron may have been hit upon by sheer accident in Peninsular India, where, according to the best minds, the iron industry is more ancient than in Europe. The Stone Age men were living primarily on hills and mountain fastnesses, and on the fringes of rich forests. Only after the discovery of iron ore, it is reasonable to suppose that primeval man took to the forest and made it his habitat. It was iron culture that permitted the people of the hills to pass on to forest life. Not only is there a belief in India of the use of iron from very early times, but it is claimed that the iron was produced by a special process which made it rust proof." According to Macdonell, the Iron Age in India may be taken as prior to 2000 B.C., but there is as yet no evidence that this early dating is valid for the peninsula.

Who Were the Builders?

Haimendorf claims that the area where the megalithic form of burial occurred, coincides with that now occupied by the people speaking the Dravidian languages—Tamil, Telugu, Canarese, and Malayalam. He urged that there was no doubt that those who

built the megaliths were the dominant race in many parts of the south at the end of the first millennium B.C., and that as the present distribution of the Dravidian languages coincided largely with that of the megalithic graves, if the megalithic builders did not speak Dravidian, what language would they have spoken? Gordon pursues the same line of argument and says "that this is not some vastly remote pre-historic period that we are considering, but that of the early historic period (322 B.C. to 500 A.D). These must have been the people who introduced the use of iron, and red and black ware, and the disposal of the dead in a number of ways, interment in urns or megalithic tombs being the most characteristic, and it is unlikely that they discarded their own language in favour of their predecessors."

On the analogy of port-hole cists which exist in the Mediterranean, Haimendorf traces the origin of the Indian megaliths to that region, and suggests that the Dravidian migration might have taken place about 500 B. C. The limited study by Zuckerman of the cranial and skeletal finds from the urn burials of Adittanallur points to the Dravidian race from the urn burials. He equates the megalithic builders of South India with the Dravidians on the following grounds:

1. The megalithic culture consisting of an improved ceramic technique and the use of iron was an extraneous intrusion on the local primitive culture at Brahmagiri.
2. The edicts of Asoka found in the contiguous village in the neighbourhood of the site at Brahmagiri could have been only addressed to the primitive neolithic folk of the locality.
3. Since the entire South India speaks only Dravidian languages today, those found may have been introduced by the vigorous

neolithic folk of the locality. As regards the origin of the neolithic folk, he is inclined towards a Mediterranean origin.

In this manner, Haimendorf infers that the megalithic builders of South India were Dravidians, but he has committed the error of linking race and language. In summing up the discussion, it strikes me that there has been a peaceful penetration of the lower aboriginal cultures by the higher Dravidians, who were able to impose their language on the lower without any violent destruction of the lower by the higher who imposed their language on them. As Gilbert Slater points out, the primitive jungle tribes appear to have acquired Dravidian languages by contact with the Dravidian neighbours.

Sankalia invites attention to the following facts: "The basic evidence which Haimendorf relied on for propounding the theory was that a certain group of megaliths known as dolmenoid cist with port-hole appeared in West European megaliths. These latter are not later than 2000 B.C., and do not contain any iron products. Thus chronologically, and in one of the cultural aspects, these European megaliths are far more removed geographically, and in time, from the South Indian megaliths. The structural affinity thus remains unexplained." Sankalia also states that Gordon Childe had told him that there was no indication of Dravidian languages in Western Europe, and also points out that "out of 34 burials found in Nevasa (1954-56), three were those of persons whose ages have been calculated to be 6, 10, and 20, the last being that of a woman. In this case, it is possible to conjecture the racial type. From the prognathy, broad face, and long and narrow head, Ehrhardt is reminded of the characteristics of primitive people in the jungles of the Deccan. The prognathy is seen in the other two skeletons as well. Thus there is a great

possibility that at least a section of the Nevasa population was of a primitive racial type." He summed up by saying, "The whole problem is in an interesting stage, and unless anthropologists, archaeologists, and linguisticians come forward, no proper solution can be had in the forseeable future." The call is not in vain. I put forth my arguments to solve the problem.

Brahmagiri Culture

The South Indian megaliths seem to be rooted in the Iron Age, supported as it is by the Brahmagiri excavation of 1947 by Wheeler, who made a very significant contribution to the subject. He points out, "From the British Isles to the Caucasus and beyond are found groups of tombs built often of large untrimmed stones, and normally intended for more than one ceremonial interment. The possibility of some sort of relationship, however remote, between many of the groups, is hinted by both the geographical distribution and by certain distinctive and recurrent features."

"Among the latter is a circular or occasionally squarish opening in the end wall of the tomb or in an internal partition. These port holes occur in the British Isles, France, Spain, Palestine, Bulgaria, the Caucasia, and even in Iran, while in the innumerable megalithic graves or cists of South India, they are more often present than not. The problem is whether these far-flung monuments constitute a unitary problem extending in space from Ireland to India, and in time of culture from the Stone Age to the Iron Age. Any widespread affinity must affect our pattern of human achievement in vital fashion". Wheeler goes on to add that the megalithic monuments remained undated. "One of the ancient sites in North Mysore to which my Arikamedu pottery brought me was surrounded by the remains of a great cemetery of the port-hole tombs." The Brahmagiri site had yielded to previous explorers a few pieces of pottery which we know from Arikamedu

evidence to be of the first century A. D. The town site at Brahmagiri revealed three successive cultures:

1. The Brahmagiri stone axe culture, a crude chalcolithic culture extending to a maximum height of 9 feet from the natural surface which is sub-divided into one earlier and the other later;

2. The megalithic culture, an Iron Age culture indentical with that of the local megalithic tombs and pit circles extending to a further height of 3/4 feet; and

3. The Andhra culture extending to the surface a further height of 2½ to 3½ feet.

All the central layers were found to be overlapped by significant overlaps. According to D. N. Majumdar, " speculation puts the Brahmagiri megalithic culture in Mysore in 3rd-2nd century B. C."

In the vicinity of Kunnamkulam (Dist: Trichur) is found Porkulam where B. K. Thapar found rock-cut caves, dolmens, port-hole cists within stone circles, and urns. He asserts that our cross-country chase in South India after the new chronology did not end in Brahmagiri. Near the famous town site of Bhuvaneswar (Orissa's New Capital) is a notable fortified site Sisupalgarh. Its importance and midway position between the Gangetic Valley and the southern areas singled it out as a likely focus. Excavations made here by Lal showed that the long arm of Arikamedu had reached the northerly site from Pondicherry. Though, according to T. N. Ramachandran, the date of burials is ascribed to the 2nd century B. C. at Brahmagiri, it is quite possible that they are of earlier origin, and the result of excavation in the south afford ample evidence to their being ascribed an earlier date, say 8th century B. C.

At the mouth of the Periyar, in Kerala, was the fiourishing town of Muchiri (modern Cranganore), an emporium of trade, where large Roman vessels came splashing the white foam on the waters of the Periyar. Pliny showed in 51 A.D. that it became "the first mart in India, and that direct voyages became the regular feature of commerce for pepper merchants." Pliny's record of the journey from Egypt to Nelcynda (Kottayam) presents the greatest achievements made up to the time. There was a considerable settlement at Cranganore, and local money, which was found scarce, was supplemented by Roman gold coins, evidence of which has also been found at Cannanore and Kottayam (Malabar). Here is a fruitful field for research on dating the past by the Archaeological Survey of India and the State Department of Archaeology.

Wheeler draws attention to the Indus Valley civilisation as a remarkable instance of how a civilisation could absorb the ideas of neighbouring countries. He says, "Ideas travel, goods travel, and sometimes ideas travel with goods. The Indus Valley civilisation was a travel of ideas. The Roman influence in South India indicated how goods travel, and the Gandhara school was an example of how both ideas and goods travel."

It was possible for Stuart Piggott to use the evidence in Mysore, in conjunction with the finds of Roman coins of the same period, and in the Chittaldrug region, for a sequence to be established as follows :

1. *Stone Age Culture:* This was characterised by polished buttaxes of local rock and a crude microlithic industry in jaspar, flint, agate, and crystal. Two small copper objects

show that metal was known, but was extremely scarce. Pottery was handmade, rarely painted or incised. The beginnings of the phase go back to early in the first millennium B.C., and it was followed about 200 B.C. by a

2. *Megalithic Culture*: This was an intrusive iron-using culture making wheel-turned pottery and building elaborate tombs. It continued in the 1st century A.D., overlapping with

3. *The Historic Andhra Culture*: Its earlier phases of Roman coins of the early first century, and the pottery of Arikamedu types, and continuing in the 3rd century A.D. The evidence shows that in certain areas of South India, at least the neolithic culture is of relatively recent date, surviving almost to the dawn of recorded history.

Modern Megalithism

Everywhere in India, "the past is the present, the present is the past". In Kerala, the megaliths are found from the coastal area to the hills up to an elevation of about 6,000 feet above the sea level (Chokkanad), and they form the home of the tribal people. Megalithism is still a living institution not only in Kerala, but also in Chota Nagpur, Assam, Bastar, and Madras. In some places, the megalithic monuments give place to symbolic wooden counterparts. While most often they are commemorative rather than sepulchral at the present day, they have lost their funerary significance by getting associated with the gorgeous, but unrelated, memorial feasts, as they are now known among the Bondos and the Gadabas. Though they exhibit an essential unity in their megalithic character, they are rich in ritual minutiae due principally to the influence of Austro-Asiatic, and, to a lesser degree, Dravidian. The most common substitute at the present day is either

a cairn or a stone with flat capstone at the top called *marmakal* or wooden pillar at the top of which are representations of birds.

With the Khasis and Nagas of Assam, the menhirs are imposing, and in alignment of old numbers of varying heights from 2 to 10 feet. The central alignment is the tallest. In accordance with the matriarchal character of Khasi society, menhirs are set up in honour of maternal uncles, while the low dolmens represent female character. The Kols have a custom of erecting monuments over the buried ashes of the dead. Elwin found two kinds of monuments among the Marias of Bastar, *Urasakal* menhir and *Dhanyakal* flat stone supported by four stones at the corner. Some cairns and wooden posts are also erected as substitutes for lithic monuments. The aboriginals consider the dead as a guard keeping close watch upon their kith and kin. The Gadabas erect menhirs and flat sitting stones on the village *sodor*. The Bondos build their dolmens close to a path. Both use them as sitting places for the living. Haimendorf is of the view that the similarity of these monuments stresses that the megalithic culture of Orissa is a branch of the megalithic civilisation which is so widely distributed in Southeast Asia. The migrations occurred in neolithic times, and they did not penetrate in any strength beyond the Godavari. In Kerala, stones are planted at the head and foot among the Muthuvans, the Mannans, the Uralis, and the Malapulayas. The Malayarayans erect miniature dolmens in honour of those dying an unnatural death. The Kurumbas of Malabar erect dolmens to bury their dead. It is important to remember that survivals of megalithism are found among the pre-Dravidian tribes on the hills, among some of whom matriarchy lingers. Megalithism and mother-right co-exist among the Kanikkars, the Muthuvans, the Uralis, and the Ullatans.

According to Ruggeri, everything induces to hold that the Dravidians were a small number of invaders who introduced their languages, and even that not everywhere, since in the Munda-Kol region, a more ancient language more ancient is preserved. He opines that they were Veddaic or Australoid, and from the fact that between the Mundas of the north and the Veddahs of the south there intervene other platyrhines, the Paniyans, the Kurumbas of the Nilgiris, the Irulas, the Muthuvans, and the Uralis of Kerala, who represent the pre-Dravidian formation, which once extended over the whole of India and has been much less affected by the newcomers, it is evident that South India was influenced by the megalithic culture in pre-Dravidian times. By about 500 B.C., the Aryan culture superseded the Dravidian in South India. We may arrive at 1000 B.C. as the approximate limit of the pre-Dravidian domination in the south when the megalithic culture seems to have dominated. Flinders-Petrie says that the date of the pre-Dravidian culture may be roughly taken as 2500 B.C., which is the Indo-Sumerian period in Northwest India. This view is confirmed by Perry who holds that, all the world over, the dolmens exhibit such similarities of structure that they must have been the work of a common single people showing a common culture. Beyond Indonesia, which includes, among other areas, Assam and Burma, megalithic monuments are in evidence in the region of the Mundas of Chota Nagpur, the Kurumbas and the Todas of the Nilgiris, and the hill tribes of Kerala. Megalithism is still a living instituion among the Khasis, and the Gonds. Menhirs are still erected by the Khasis to memorialise a woman's husband. In the south, the Kurumbas, the Irulas, and the Malayarayans erect miniature dolmens.

Palaeontological Evidence

No skeletal remains have so far been found to bear any evidence of a Negrito race in Kerala. Judged

by the contents and the nature of the objects found, the megalithic remains of the Deccan are, according to J.H. Hutton, post-Vedic, and later than any similar remains of the Central Indian plateau, from where the culture seems to have spread southwards.

In his study of human skeletal remains from Brahmagiri, S. S. Sarkar summarises his conclusions tentatively as follows:

1. Archaeological excavation at Brahmagiri has yielded 10 megaliths and a large number of urn burials, and an open burial of a child about 12 years old, the latter belonging to the Stone Age culture.
2. Human burials were found in all megaliths, all of which are cist circles, while pit circles yielded remains of three individuals.
3. Each megalith appears to be a family vault, since the remains of more than one individual were found in each.
4. The crania from megalithic burial reveal an autochthonous Australoid type, and a more or less medium-statured, medium-vaulted, flat-nosed mesocephalic type with robust constitution and powerful upper and lower jaws, probably Scytho-Iranian stock.
5. The single child skull from the Stone Age culture appears to be of the autochthonous Australian.

Sarkar says that the megalithic builders were Irano-Scythian in character, and that they were close to the general element of South India. N.K. Bose believes that there was a distinct infiltration of brachycephals at this particular period of Indian history, and that if it is so, the actual distribution of brachycephals becomes of great significance.

Certainly we need more skeletal material for any final conclusion. Great care should be taken in generalising about ancient man. Even where the physical resemblances between ancient fossil and modern skeleton seem to be obvious, in the absence of soft parts, it is unwise to make too definite conclusions.

The two fossil remains found in India, the Bayana cranium and the Sailkot cranium, according to Keith, are of the Veddaic type which represents the pre-Dravidian formation (Proto-Australoid). The excavations at Mohenjo-Daro and Harappa reveal that one of the skulls is Proto-Australoid. A correspondence in type is found in one of the skulls at Adittanallur which is called Proto-Australoid by Elliot Smith. The physical characteristics found in the skulls are found in the South Indian tribes and the Veddahs of Ceylon. There is a remarkable similarity in skeletons, says Newbingen, between these and the skeletons found in the tumuli of Great Britain, France, and Germany, which exhibit features of a dolichocephalic people. Thus the uniformity in the structure of the monuments is marked by some uniformity of the contained skeletons which belong to a dolichocephalic people, who are known as the Pre-Dravidians. Thurnham concluded that to the dolichocephalic race belonged the long dolmens, and this conclusion is confirmed by others.

The megalithic monuments of Kerala bear eloquent witness to the historic and cultural achievements of Kerala, and constitute a heritage of incalculable value which it must be our privilege to guard and hand over to posterity.

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